Title (en)
PHASE DETECTION AUTOFOCUS NOISE REDUCTION

Title (de)
RAUSCHVERMINDERUNG BEI PHASENDETEKTIONSAUTOFOKUS

Title (fr)
RÉDUCTION DE BRUIT DE MISE AU POINT AUTOMATIQUE À DÉTECTION DE PHASE

Publication
EP 3354008 B1 20210811 (EN)

Application
EP 16766702 A 20160824

Priority
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- US 201514865629 A 20150925

Abstract (en)
[origin: US9420164B1] Certain aspects relate to systems and techniques for using imaging pixels (that is, non-phase detection pixels) for performing noise reduction on phase detection autofocus. Advantageously, this can provide for more accurate phase detection autofocus and also to optimized processor usage for performing phase detection. The phase difference detection pixels are provided to obtain a phase difference detection signal indicating a shift direction (defocus direction) and a shift amount (defocus amount) of image focus, and analysis of imaging pixel values can be used to estimate a level of focus of an in-focus region of interest and to limit the identified phase difference accordingly.

IPC 8 full level
H04N 9/04 (2006.01); **G02B 7/34** (2021.01); **H01L 27/146** (2006.01); **H04N 5/232** (2006.01); **H04N 5/369** (2011.01)

CPC (source: CN EP US)
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US 9420164 B1 20160816; BR 112018006072 A2 20181009; CN 108141528 A 20180608; CN 108141528 B 20200821; CN 111885308 A 20201103; EP 3354008 A1 20180801; EP 3354008 B1 20210811; JP 2018535442 A 20181129; JP 6946278 B2 20211006; US 2017094149 A1 20170330; US 9729779 B2 20170808; WO 2017052918 A1 20170330

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